

In the Specification

Please replace the paragraph beginning on page 14, line 22, with the following paragraph:

Figure 3 is a flowchart of one embodiment of a method for making the estimation of parameters for the Gaussian pulse comprised in the received digital signal, as described above in 2024 with reference to Figure 2. It should be noted that in various embodiments, various of the steps presented below may occur in a different order than shown, or may be omitted, as desired. In other embodiments, additional steps may be included, as well. In the preferred embodiment, the estimation may be made using the “zoom-in” approach, as is well known in the art, and which is described in detail below. At a high level, the zoom-in approach involves determining which of a predetermined set of Gaussian waveforms, also termed “Gaussian windows”, most closely matches the Gaussian pulse in the received signal. Once the closest match is made, that Gaussian waveform’s characteristic parameters may be used as the estimation of the Gaussian pulse. It should be noted that in the TDR system described above with reference to Figure 1, the method described may also be used to generate estimations of parameters for the one or more reflected Gaussian pulses.

Please replace the paragraph beginning on page 17, line 20, with the following paragraph:

As mentioned, in one embodiment, the method described above with reference to Figures 2 and 3 may be applied iteratively to a signal containing multiple Gaussian pulses, such as may be produced by the TDR system of Figure 1. Such as method is described below with reference to Figure 4. In this embodiment, each time a pulse is detected and characterized, the characterized pulse may be subtracted from the signal, leaving a residue containing any remaining pulses. This residue may then be used as the input signal, and the next pulse detected and characterized. Again, the characterized pulse may be subtracted from the signal, leaving another residual signal, and so on, until

all pulses of interest have been detected and characterized. Useful analyses may then be conducted on the resulting characterized pulses to extract useful information regarding the DUT, such as the number, nature, and location of connection discontinuities therein.